DoD UID Implementation Plan for Maintenance Depots

Department of Defense
Unique Identification (UID) Implementation Plan

for

DoD Maintenance Depots

May 2005

Prepared by the Office of the Secretary of Defense
Materiel Readiness and Maintenance Policy
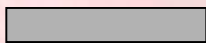
Greg Kilchenstein

JRIB Meeting
21 July, 2005

USD(AT&L) Policy Memo 23 December, 2004

Milestone	Responsibility	Q1 FY05	Q2 FY05	Q3 FY05	Q4 FY05	FY06	FY07	FY08	FY09	FY10	FY11
Quality Assurance Plan for UID	DCMA		Jan-05								
OSD UID Budget Guidance to Components	OSD AT&L			Apr-05							
Legacy UID Implementation Plan for DoD Depots	OSD L&MR			May-05							
UID Program Plans (ACAT 1D)	Pgm Mgr			Jun-05							
IOC Legacy Marking Capability at Pilot Organic Depots	Military Departments				Jul-05						
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FOC Legacy Marking Capability at All Organic Depots	Military Departments						Sep-07				
Complete UID Marking of All Legacy Items	Pgm Mgr/Item Mgr									Dec-10	

= Program Office Plans   = Maintenance Community Plans

Plan Contents

- Chapter 1: Introduction

- Chapter 2: Preparing for UID Capability Establishment

- Chapter 3: Establishing Depot UID Capability

Chapter 1: Introduction

- Purpose and Vision for UID
  - CFO Act, FASAB Standards and GAO Reports
  - OSD UID Program
- Application of UID Technology
  - Improving Inventory Management and Cost Accounting Capabilities for New Items
  - Improving Inventory Management and Cost Accounting Capabilities for Legacy Items
  - Improving Materiel Maintenance Capabilities for New Items
  - Improving Materiel Maintenance Capabilities for Legacy Items

Application of UID Technology

Where Are We Now?

Current implementation status

UID Enables Improved Material Asset Tracking & Cost Accounting (New Items)
- Make Informed Decisions
- Access Data
- Transact Data
- WAWF/AIT Infrastructure
- UID Registry/Service DSS
- Mark Items
- Engineering
- Funding
- Implementation Plan
- UID Policy
- Requirements Statement

UID Enables Improved Material Maintenance (New Items)
- Make Informed Decisions
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- WAWF/AIT Infrastructure
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- Mark Items
- Engineering
- Funding
- Implementation Plan
- SIM Policy
- Requirements Statement

UID for Improved DoD Asset Tracking and Accounting

UID for Improved DoD Maintenance (SIM/Pedigree Mgm't)

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Next Steps

Chapter 2: Preparing for UID Capability Establishment

- OSD Policy Flowdown to DoD Depots
- Depot UID Planning and Resourcing
  - Planning Challenge
    - IOC
    - FOC
  - Resourcing Challenge
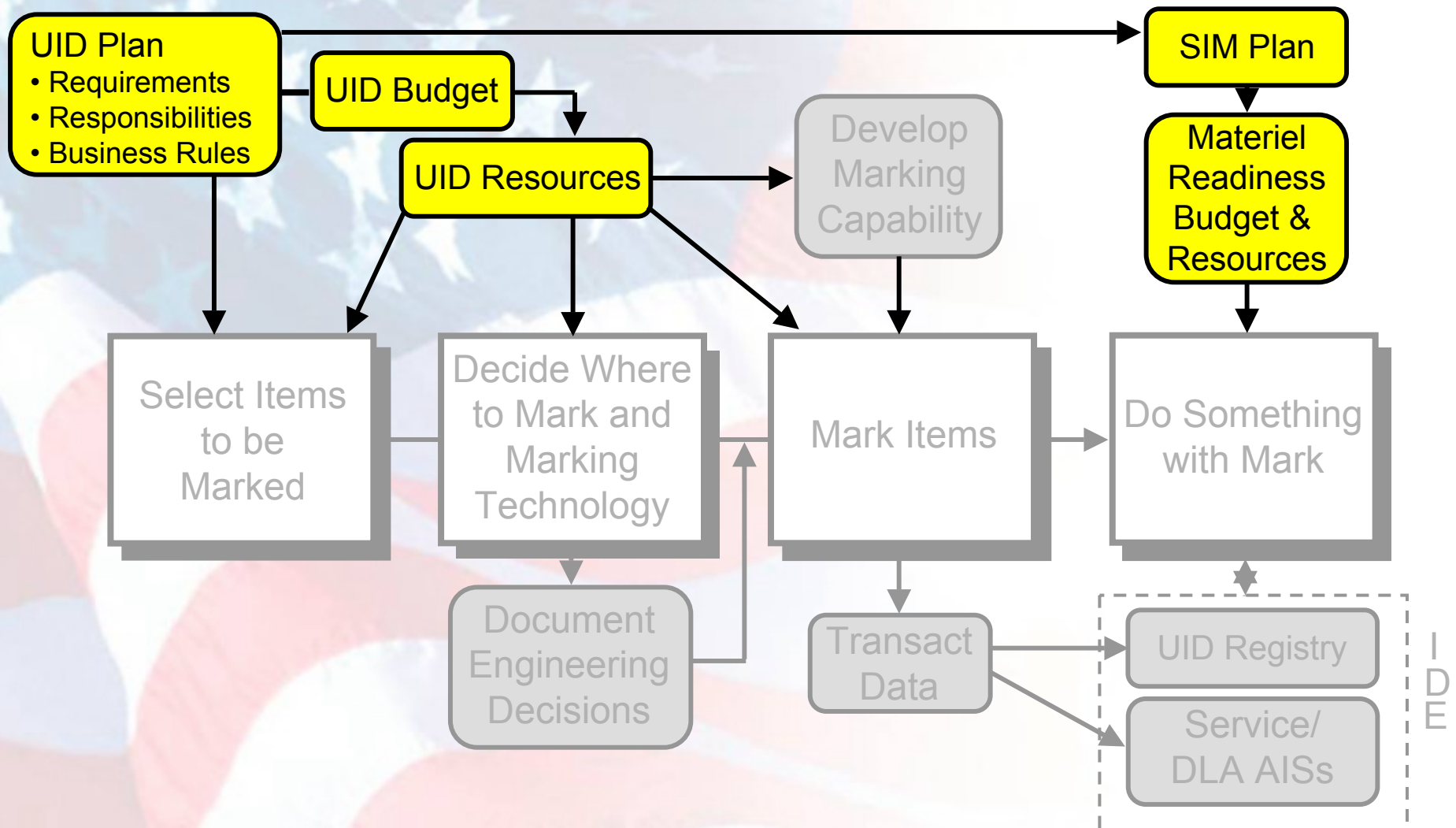
OSD Policy Flowdown
to DoD Depots

- **Standardized Policy**
  - Common Doctrine
  - Common Business Rules
  - Common Data Formats & Transaction Protocols
    - "Plug & Play"
  - Duplication of Effort Reduced
  - Opportunity for Economonies of Scale with Investments

- Non-Standard Policy
  - Flexible Doctrine
  - Optimized Business Rules
  - Dissimilar Data Formats & Transaction Protocols
    - No "Plug & Play"
  - Duplication of Effort More Likely
  - Reduced Economonies of Scale

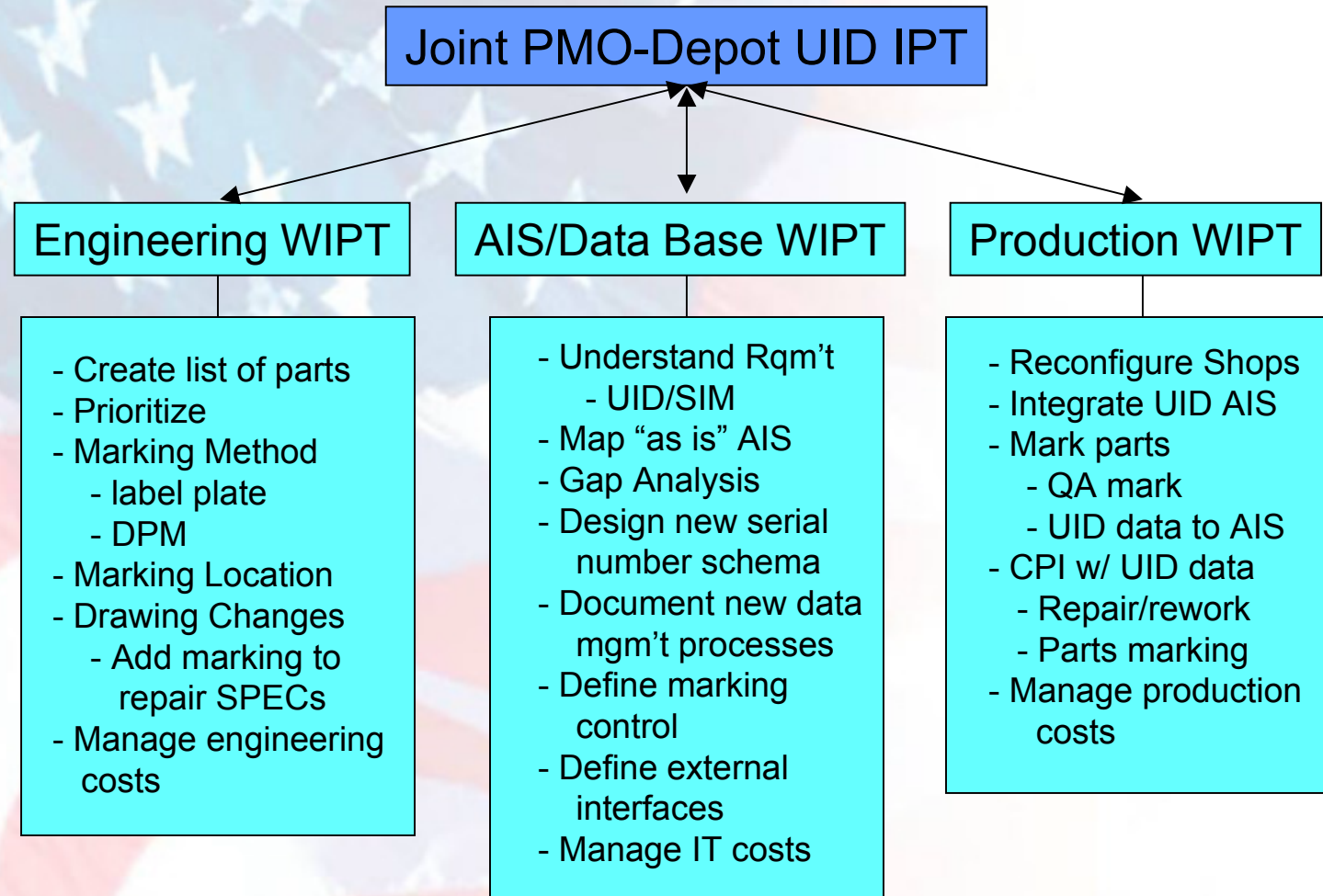Recommended for Cross-Service Maintenance UID Implementation

Depot UID Planning and Resourcing

UID Plan
- Requirements
- Responsibilities
- Business Rules

UID Budget

UID Resources

SIM Plan

Materiel Readiness Budget & Resources

Develop Marking Capability

Select Items to be Marked

Decide Where to Mark and Marking Technology

Mark Items

Do Something with Mark

Document Engineering Decisions

Transact Data

UID Registry

Service/ DLA AISs

IDE

Depot UID Planning and Resourcing

Joint PMO-Depot UID IPT

Engineering WIPT

- Create list of parts
- Prioritize
- Marking Method
  - label plate
  - DPM
- Marking Location
- Drawing Changes
  - Add marking to repair SPECs
- Manage engineering costs

AIS/Data Base WIPT

- Understand Rqm't
  - UID/SIM
- Map "as is" AIS
- Gap Analysis
- Design new serial number schema
- Document new data mgm't processes
- Define marking control
- Define external interfaces
- Manage IT costs

Production WIPT

- Reconfigure Shops
- Integrate UID AIS
- Mark parts
  - QA mark
  - UID data to AIS
- CPI w/ UID data
  - Repair/rework
  - Parts marking
- Manage production costs

These three processes need to take place collaboratively and in parallel

Depot UID Planning and Resourcing

- **Joint PMO/Depot UID IPT required at each maintenance depot…for each weapon system.**
  - **Matrixed support from depot employees and Program Office employees.**

	PMO 1	PMO 2	PMO 3	PMO 4	PMO 5	PMO 6	PMO 7	...	PMO 67	PMO 68	PMO 69	PMO 70
Depot A		X		X	X					X		
Depot B	X				X							X
Depot C		X			X						X	
Depot D	X											
Depot E						X			X	X	X	
Depot F			X	X					X			
Depot G			X									
Depot H							X				X	
Depot I						X	X					X
Depot J						X						
Depot K				X								X
Depot L	X								X			

Depot UID Planning and Resourcing

- Examples of early planning requirements:
  - As-is process mapping
  - Linking depot to UID Registry
  - Establishing the uniqueness of UID data elements
  - Establishing the local UID AIS/data base
  - Establishing the capability to physically mark parts
  - Drawing change process
  - Engineering analysis for marking approval
  - Modifying shop routers

…all required for IOC

Depot UID Planning and Resourcing

- ## UID Resourcing Challenge:
  - Tactical Resourcing
    - What parts will the depot be required to mark (workload forecast)?
    - What does the depot need to do to develop the capability to execute the forecasted workload, and how much will it cost (non-recurring investment)?
    - What does the depot need to do to actually execute the workload, and how much will it cost (recurring expenses)?
  - Strategic Resourcing
    - Which Service accounts will be used to reimburse the depots for their UID costs?

Depot UID Planning and Resourcing

- **Alternative Strategies for Resourcing Depot UID:**
  - UID parts marking is a Program requirement to be funded by the cognizant Program Manager or other acquisition agent (e.g., Commodity Manager, Item Manager)
  - UID parts marking is an Operational requirement (because the ROI on UID/SIM investment accrues to the Warfighter) to be funded out of Service O&M accounts.
  - UID parts marking is a normal part of the depot manufacturing/repair/rework process to be funded the same as current depot workload

Standard Approach to Funding Depot Work

- **Program Office funds**
  - Non-recurring investment in Depot capability establishment
    - Includes parts marking equipment & initial training
    - Includes UID data processing/data management AIS procurement/upgrade
    - Reliability improvement and non-depot sustainment processes
  - Recurring cost of engineering support to parts marking
    - approving marking method (label or DPM)
    - Approving marking technology, location
    - Maintaining drawings & technical documentation
  - Recurring cost of analyzing UID data in search of opportunities to improve materiel readiness and/or reduce sustainment cost

- **Depot funds**
  - Recurring cost of marking parts and obtaining & transacting UID data = (UID labor & materiel added to the current cost of item repair/rework IAW change to item rework SPEC)*
  - Non-recurring investment in depot process improvements required to actually improve materiel readiness and/or reduce sustainment cost

* Army disagrees; feels all UID funding is PMO responsibility

Chapter 3: Establishing Depot UID Capability

- Joint PMO/Depot UID IPT Responsibilities
  - Identifying what to mark
- UID Engineering WIPT
  - Determining where and how to mark items
    - Engineering analysis
    - Cost analysis
  - Engineering drawing changes and configuration control
- UID AIS/Database WIPT
  - Business process analysis
  - Alternative AIS architectures
  - Serial number schema and control
    - New parts
    - Legacy parts
  - New process definitions
  - AIS interface issues
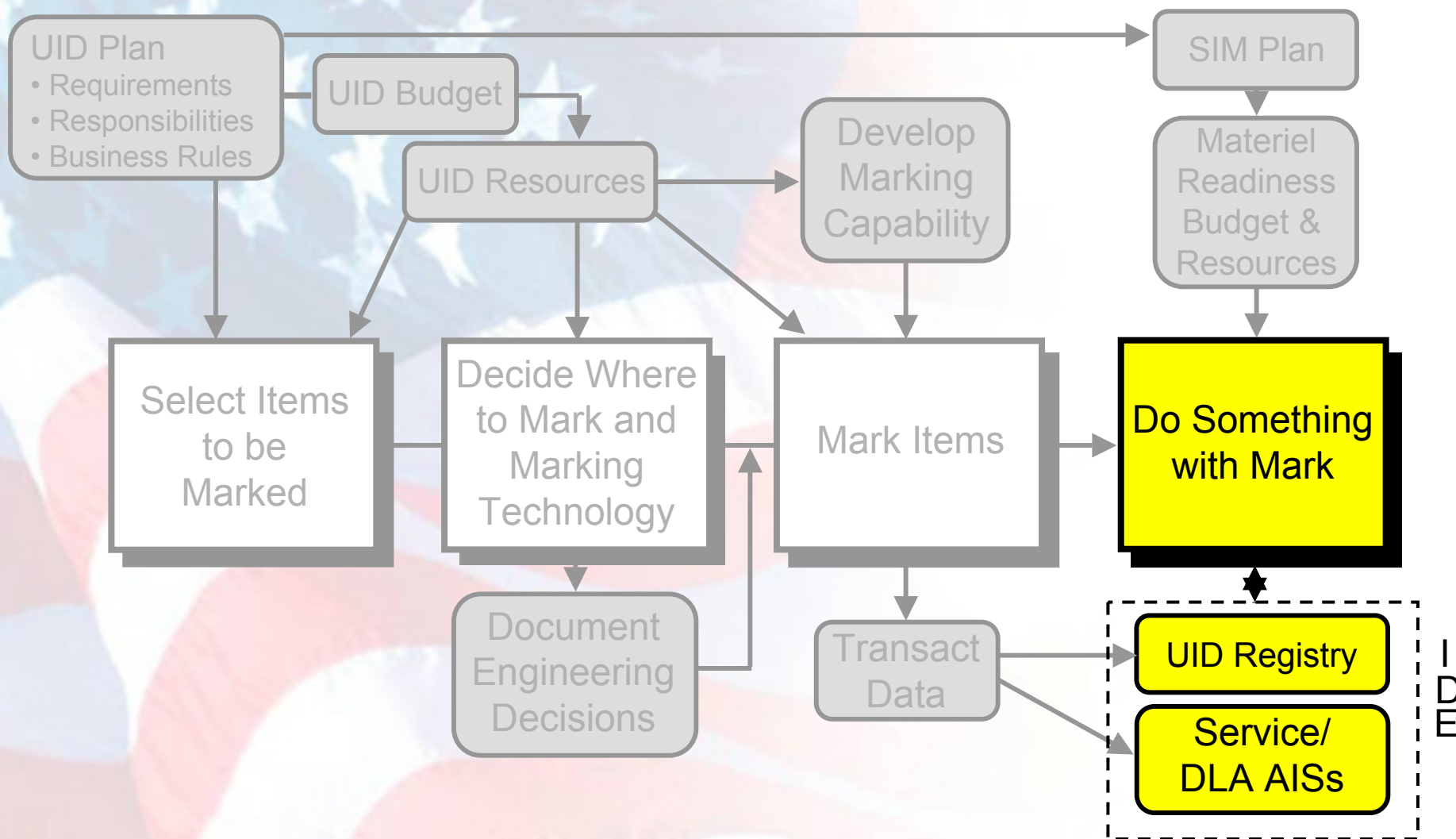
UID Capability Establishment Summary

- Assign management responsibilities & delegate authority PMO

- Identify which items need to be marked ——————— PMO/Depot IPT

- Plan and budget for UID marking capability ————— PMO/Depot IPT

- Develop the capability to mark items ————— Depot

- Determine where and how to apply the UID mark ——— Cog. TA*

- Mark designated items ————————— Depot

- Obtain UID data for each individual item marked ——— Depot

- Transact data to the UID Registry and other DSSs ——— Depot

- Do something with the mark (to generate an ROI)——— PMO/Depot
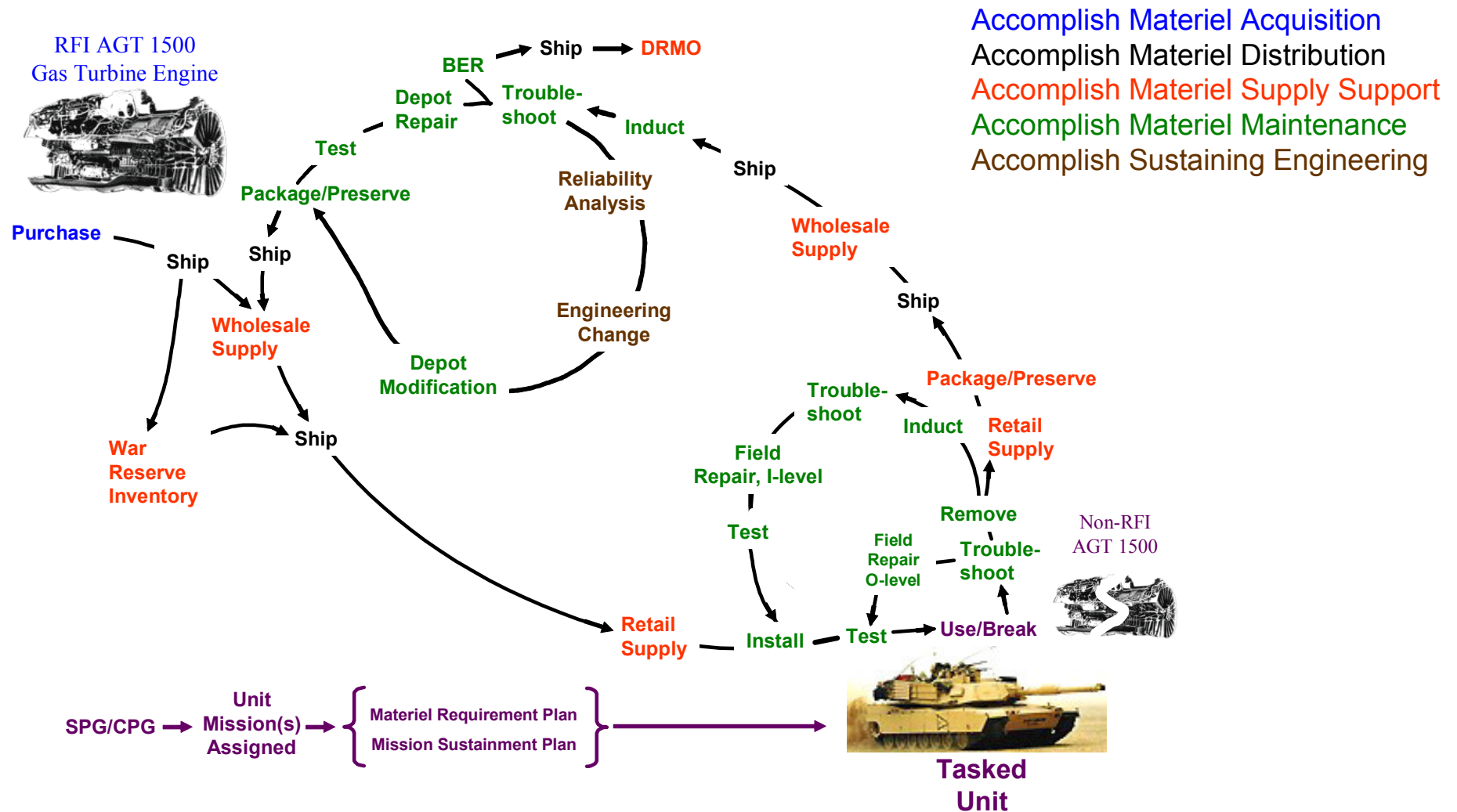
*member of UID Engineering WIPT

Do Something With the Mark

UID Plan
- Requirements
- Responsibilities
- Business Rules

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Do Something With the Mark – the Bridge to SIM

Do Something With the Mark – the Bridge to SIM

Knowledge-enabled Analyses and Actions…
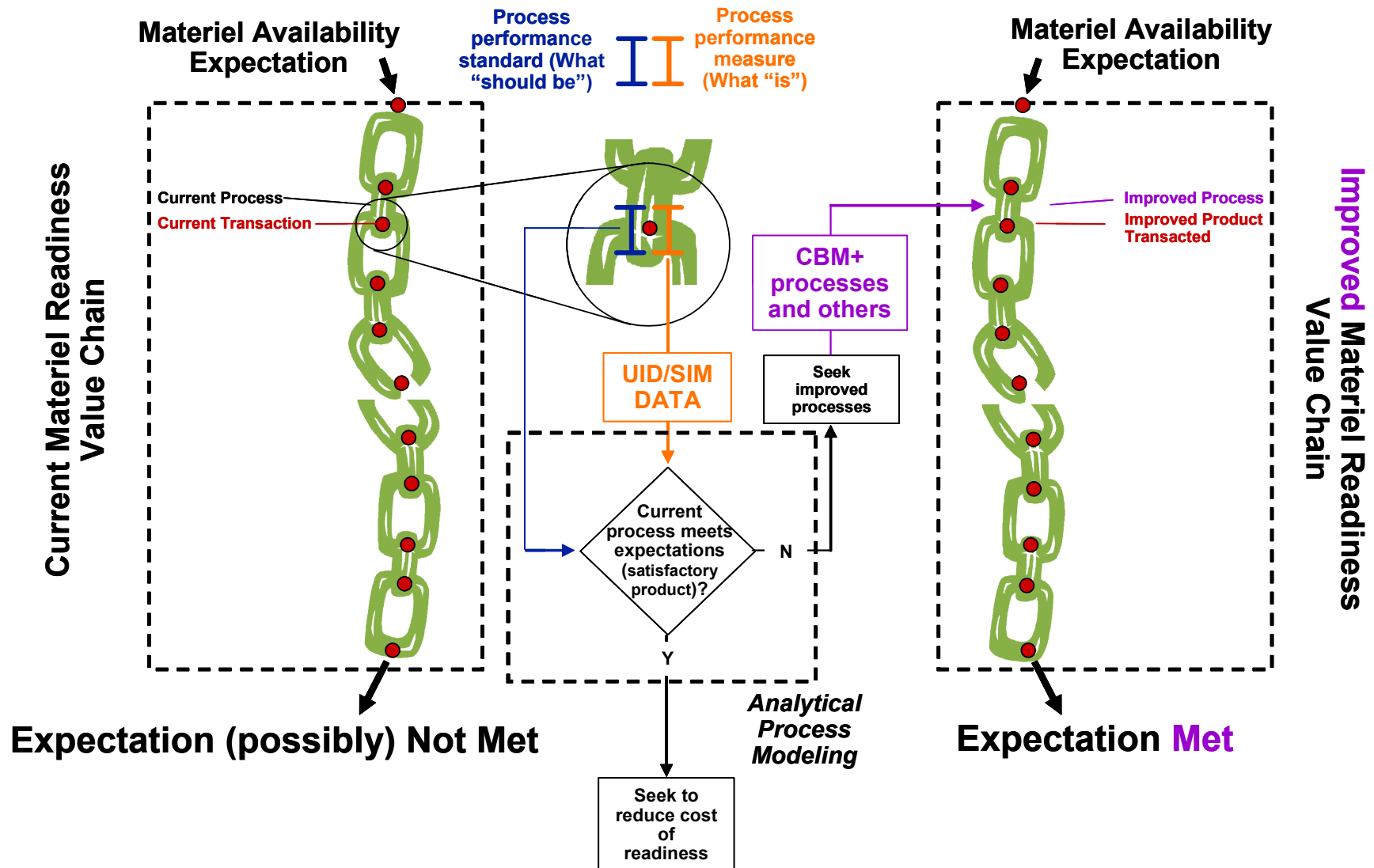
	Capability to document what it "should be"	Capability to document What it "is"	Capability to develop and implement a plan for moving from "as is" to "should be"
Materiel Readiness	✔	✔	✔
Reliability	✔	✔	✔
Cycle-Time	✔	✔	✔
Cost	✔	✔	✔

Do Something With the Mark – the Bridge to SIM

Materiel Availability Expectation

Process performance standard (What "should be")

Process performance measure (What "is")

Materiel Availability Expectation

Current Materiel Readiness Value Chain

Current Process

Current Transaction

Improved Materiel Readiness Value Chain

Improved Process

Improved Product Transacted

CBM+ processes and others

UID/SIM DATA

Seek improved processes

Current process meets expectations (satisfactory product)?

N

Y

Analytical Process Modeling

Expectation (possibly) Not Met

Seek to reduce cost of readiness

Expectation Met

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December document will present an opportunity to further develop the SIM vision and bring Field maintenance activities into UID planning.

# Center for Materiel Readiness
Leadership to Optimize Value Chain Performance

SPG/CPG → Unit Mission(s) Assigned → { Materiel Requirement Plan / Mission Sustainment Plan }

Sustainment Leader

Center for Materiel Readiness

Value Chain Integrator

Purchase · Ship · Ship · Wholesale Supply · War Reserve Inventory · Ship · Retail Supply · Install · Test · Use/Break · Depot Modification · Package/Preserve · Test · Depot Repair · BER · Ship · DRMO · Trouble-shoot · Induct · Reliability Analysis · Engineering Change · Ship · Ship · Wholesale Supply · Package/Preserve · Induct · Retail Supply · Remove · Trouble-shoot · Trouble-shoot · Field Repair, I-level · Test · Field Repair O-level

I-RFI

Tasked Unit

To optimize materiel readiness and cost, the total sustainment value chain must be **integrated** and **aligned**.

Alignment is achieved when all independent efforts are in support of a **common objective** and **shared expectations**.

Back-up Slides

OSD UID Resourcing Guidance

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Budget guidance to Program Offices
Provided in AT&L Policy Memo dtd.
11 May, 2005 (Appendix D).
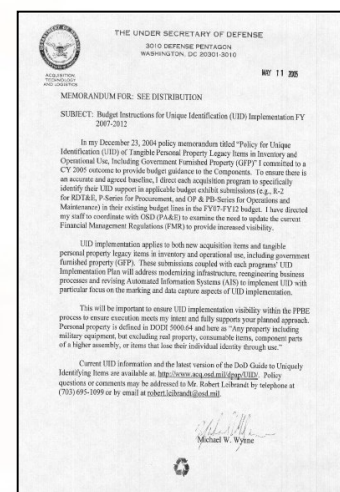
Two UID "PPE Populations":
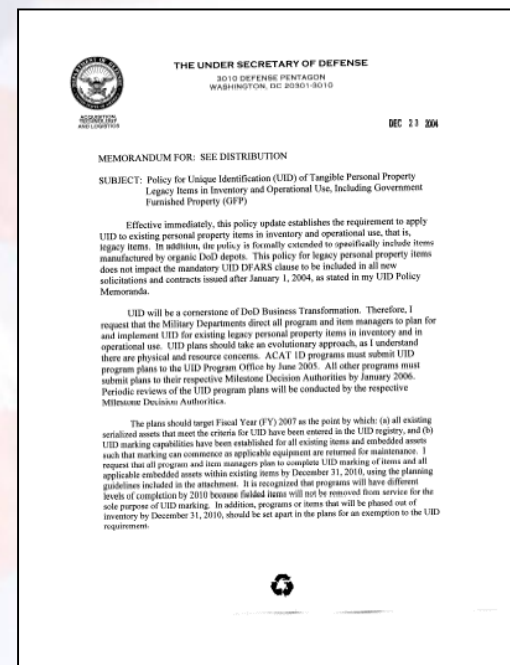# New Tangible Items & Legacy Items

USD(AT&L) Policy Memo
29 July, 2003

USD(AT&L) Policy Memo
23 December, 2004
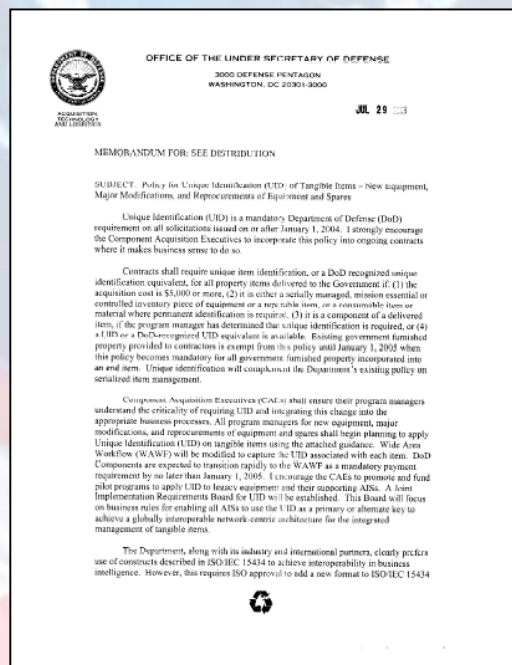
- **New tangible items**
  - Begin NLT 1 Jan 2004
    - commercial purchases
  - Begin NLT 1 Jan 2005
    - depot manufactured items

- **Legacy items in inventory**
  - IOC Jul 2005
    - pilot depots
  - Complete NLT Sep 2007
    - all existing serialized items
  - Complete all items NLT Dec 2010

Strategic Plan

Data Is Required for Informed Decision-Making

OSD and DoD Components

- Document mission-based materiel readiness requirements
- Resource to efficiently achieve and sustain planned materiel availability in support of required readiness
- Evaluate the performance of the sustainment value chain
- If performance matches plan, seek to reduce the cost of sustainment; if performance is below plan, seek to increase value chain performance

Five Pillars for Sustaining Materiel Readiness

- Policy
- Measuring materiel readiness
- Optimizing materiel reliability
- Optimizing sustainment turnaround time/cycle time
- Balancing resources

UID/SIM enables this!

Optimizing Sustainment Costs
How much should Materiel Readiness cost?

Cost of Materiel Readiness (higher / lower)

RFU Materiel Produced and Delivered by End-to-End Sustainment Value Stream

Below Entitlement

Above Entitlement

Insufficient Sustainment Production
(excess materiel replacement cost)

Excess Sustainment Production
(excess infrastructure cost)

Balanced Sustainment Production
(production rate balanced with demand = "should cost")